

## Short notes

# New distribution of *Picobia caudati* Skoracki and Hebda, 2004 (Acariformes: Syringophilidae): an ectoparasite of Long-tailed Tit *Aegithalos caudatus* (L.) (Passeriformes: Aegithalidae)

Mateusz Zmudzinski<sup>1</sup>, Markus Unsoeld<sup>2</sup>

<sup>1</sup>Department of Animal Morphology, Faculty of Biology, Adam Mickiewicz University, ul. Umultowska 89, 61-614 Poznań, Poland

<sup>2</sup>Ornithological Section, Bavarian State Collection of Zoology, Muenchhausenstrasse 21, Munich 81247, Germany

Corresponding Author: Mateusz Zmudzinski; e-mail: mat.zmudzinski@gmail.com

**ABSTRACT.** Quill mite species *Picobia caudati* Skoracki and Hebda, 2004 collected from its type host *Aegithalos caudatus* (L.) is recorded from seven new localities in Europe (France, Germany, Italy, Macedonia) and Asia (China, Russia, Japan).

**Key words:** Acari, *Aegithalos caudatus*, quill mites, Syringophilidae

## Introduction

Mites of the family Syringophilidae (Acariformes: Prostigmata: Cheyletoidea) are obligatory and highly host-specific ectoparasites of birds inhabiting quills of various types of feathers. The representatives of the subfamily Syringophilinae Lavoipierre, 1953 occupy feathers of wings and tail, whereas members of the subfamily Picobiinae Johnston and Kethley, 1973 occupy exclusively body feathers [1,2]. Currently, the family includes more than 330 described species and 60 genera reported from 95 families and 24 orders and found in all zoogeographical regions, except Antarctica [3,4].

The host, *Aegithalos caudatus* (L.) has a wide distribution across the whole Europe and the large part of Asia [5,6] (Fig. 1). So far, three quill mite species have been described from this host: two species of the subfamily Syringophilinae Lavoipierre: *Neoaulonastus aegithalos* Skoracki, 2011 from Poland [1], *Neosyringophilopsis aegithali* (Bochkov, Mironov and Skoracki, 2001),

from England, Poland and Russia [7–9], and one species of the subfamily Picobiinae Johnston and Kethley: *Picobia caudati* Skoracki and Hebda, 2004 from Poland [10,11].

In this short note we provide the records of *P. caudati* from seven new localities in Europe and Asia.

## Materials and Methods

The mite material used in present study was collected from dry bird skins housed in the ornithological collection of the Bavarian State Collection of Zoology, Munich, Germany (ZSM). Before mounting, mites were softened and cleared in Nesbitt's solution at 40°C for c.a. 10 hours. For light microscope study mites were mounted on slides in Faure's medium and investigated under a ZEISS Axioscope™ light microscope with DIC optics. Mite specimens are deposited in the A. Mickiewicz University, Department of Animal Morphology, Poznan, Poland and Bavarian State Collection of Zoology, Munich, Germany.



Fig. 1. Distribution of *Aegithalos caudatus* (L.) with locations of collected material

## Results

Family: Syringophilidae Lavoipierre, 1953

Subfamily: Picobiinae Johnston and Kethley, 1973

*Picobia caudati* Skoracki and Hebda, 2004

This monoxenous species was originally described from the Long-tailed Tit *Aegithalos caudatus* (Linnaeus, 1758) (Passeriformes: Aegithalidae) from Poland (Popielow near Opole) [10,11], and to this time there were no other data since first description. Below, we provide the records of the new localities for this mite species, all collected from the type host.

## Material examined

Five females; FRANCE, Corsica, Corte, 17 April 1952, coll. H. Kahmann.

Two females; GERMANY, Salzberg, Berchtesgaden, 23 February 1910, coll. F. Riehstein.

One female; ITALY, 22 January 1917, coll. P. Rockinger.

Six females; MACEDONIA, Slatina, 15 March 1918, coll. F. Doflein.

Two females; CHINA, Ningpo, 9 June 1900, coll. J. Haberer.

Four females; RUSSIA, Siberia, Irkutsk Oblast,

12 June 1902, coll. A. Bartashev.

One female; JAPAN, Honshu Island, coll. F. Woflein.

Thirty five specimens of *A. caudatus* were examined, 6 of them were inhabited by quill mites (prevalence  $\approx 17\%$ ).

Representatives of *P. caudati* were found in the quills of body feathers of its host in distant locations in Europe and Asia (Fig. 1). It suggests that the entire population of *A. caudatus* may be inhabited by the same parasite species.

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